

REMARKS

Claims 1, 19, 23, and 27 are amended. Claims 4 and 5 are canceled. Upon entry of the amendment, claims 1-3 and 6-28 are pending in the present application.

As amended claim 1 recites,

A system for delivering a single drop of liquid to an eye of a subject, said system comprising:

a receiver adapted to receive a liquid to be delivered to an eye of a subject.

a transfer portion connected to said receiver to receive liquid therefrom, said transfer portion including a capillary tube to advance a drop of said liquid by gravity and capillary action to a lower discharge outlet of the capillary tube whereat the drop of liquid breaks away and drops from the capillary tube,

a one way valve between said receiver and said capillary tube which permits passage into said capillary tube of said drop of liquid and prevents reflux of the liquid from the capillary tube back into the receiver, and

a lid retractor having a terminal end portion which is bent at an angle supported adjacent to said discharge outlet of the capillary tube, said lid retractor being adapted for being pressed against the lower lid of the subject to form a cul-de-sac between the lower lid and the eye,

said lower discharge outlet of said capillary tube having a lower end portion which is bent at an angle being positioned adjacent to and above said lid retractor where the terminal end portion of said lid retractor and said lower end portion of said capillary tube extend at substantially equal angles such that said lower discharge outlet is in a position to deposit the drop of liquid into the cul-de-sac.

Thus, claim 1 clearly requires (1) a one way valve between the receiver and the capillary tube; (2) the terminal end portion of the lid retractor being bent at an angle; and (3) the terminal end portion of the lid retractor and the lower end portion of the capillary tube extending at equal angles. It is important to note that both the terminal end portion and the lower end portion are bent at an angle. Support for the amendment is found in the claims as filed as well as, for example, Figures 2 and 3.

Claims 19, 23 and 27 are similarly amended. Claim 19 recites a device where "the terminal ends of said discharge outlet and said lid retractor are bent at substantially equal angles and extend at substantially equal angles." Claim 23 recites, in pertinent part, an apparatus having a liquid conveyor and a lid retractor where "said liquid conveyor and said lid retractor have terminal portions which are bent at substantially equal angles so as to extend in a substantially parallel relationship." Claim 27 recites, in pertinent part, a method of depositing a drop of liquid into the eye comprising "providing an instrument having a retractor portion and a discharge end extending at substantially equal angles to one another."

As discussed below, the present claims are patentable because the cited references, alone or in combination, fail to disclose, teach or suggest each and every element recited in the claims.

Claim rejections under 35 U.S.C. § 102

Claims 19-21, 23-25, and 27-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bolden (US Patent No. 6,090,086).

Bolden fails to anticipate the present claims because Bolden does not disclose, teach or suggest each and every element recited. Specifically, Bolden lacks a teaching or suggestion of an eye dropper where both the terminal end portion of the liquid flow means/liquid conveyor/discharge end (claims 19, 23 and 27 respectively) and the terminal end portion of the lid retractor are bent at substantially equal angles.

As discussed in the Response filed 17 February 2006, Bolden discloses an eye drop dispenser fabricated from a light pliable and compressible material which allows the user to squeeze liquid from the container 12 to a nozzle 14 (Col. 4, lines 19-25). The liquid medicament 5 exits the container 12 through opening 16 at the end of the nozzle (Col. 4, lines 26-31). Gravity causes drops to fall from the nozzle, into the eye (Col. 4, lines 23-25). Bolden's eye drop dispenser also includes a flexible guide arm 20 which is manufactured from a semi-rigid material which allows the user to adjust the

shape of the arm (Col. 4, lines 32-40). There is no requirement that Bolden's flexible guide arm be bent at an angle.

Moreover, neither the Figures nor the specification of Bolden disclose, teach or suggest a dropper where both the terminal end portion of the liquid flow means/liquid conveyor/discharge end (claims 19, 23 and 27 respectively) and the terminal end portion of the lid retractor are bent at substantially equal angles. Rather, Bolden teaches a dropper with a straight through opening 16 that is radially aligned with and sealingly covered by cap 30. (col 5, lines 11-14, Figures 1-7). Because the through opening 16 and cap 30 unquestionably define a straight path without any angles, Bolden does not and cannot teach or suggest all of the elements recited in the present claims.

With regard to claim 19, Bolden neither teaches nor suggests an eye drop device where the "liquid flow means and said lid retractor means being integrated and arranged so that the terminal ends of said discharge outlet and said lid retractor are bent at substantially equal angles and extend at substantially equal angles such that said discharge outlet is positioned to deposit a drop of liquid into the cul-de-sac when said lid retractor means is pressed against the lower lid."

With regard to claim 23, Bolden neither teaches nor suggests an apparatus having "[a] liquid conveyor and [a] lid retractor hav[ing] terminal portions which are bent at substantially equal angles so as to extend in substantially parallel relationship."

With regard to claim 27, Bolden neither teaches nor suggests a method of depositing a drop of liquid in an eye comprising "providing an instrument having a retractor portion and a discharge end bent extending at substantially equal angles to one another."

While not specifically raised by the Examiner, Bolden also fails to anticipate the present claim 1 and for the same or similar reasons set forth above. Specifically, in addition to the reasons set forth in the Response filed February 17, 2006 (incorporated herein by reference), Bolden does not disclose, teach or suggest an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle. More importantly, Bolden

fails to disclose, teach or suggest an eye dropper where the terminal/lower end portions are both bent and extend at substantially equal angles.

Because Bolden does not disclose, teach, or suggest each and every element as recited, Bolden fails to anticipate the present claims. Thus, the Examiner's rejection of independent claims 19, 23, and 27 is improper and should be withdrawn. Further, there is no basis for rejecting claims 1, 19, 23, and 27 as obvious.

Claims 2-3, and 6-18 all depend, directly or indirectly, from claim 1 and are patentable for at least the reasons set forth in support of claim 1. As such, some of the dependant claims are independently patentable for at least the following reasons:

Claim 9 recites, in pertinent part: "The system of claim 1, said receiver has an upper end portion formed as a flexible bulb connected to a loading chamber."

Claim 10 recites: "The system of claim 9, further comprising finger engageable portions secured to said transfer portion to enable the subject to engage the finger engageable portions with a thumb and middle finger of one hand and press the bulb with a forefinger of the same hand to expel liquid from the device."

Claim 11 recites: "The system of claim 10, wherein said loading chamber has a valve opening for depositing liquid from a container into the loading chamber.

Claim 12 recites: "The system of claim 10, wherein said finger engageable portions include two rod members on opposite sides of said capillary tube, each rod member having a recess for engagement by a finger of the subject."

Claim 13 recites: "The system of claim 12, wherein said rod members are secured to said capillary tube."

Claim 14 recites: "The system of claim 12, wherein said rod members have lower ends fixed to said capillary tube and bent upper ends facing one another which is connected to the loading chamber."

As stated above, nothing in Bolden even remotely suggests the structure recited in dependant claims 9-14. Thus, dependent claims 9-14 are independently patentable for at least this additional reason.

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Claims 20-26 depend from independent claim 19 and are patentable for at least the same reasons set forth in support of claims 1 and 19.

Claims 24-26 depend from independent claim 23 and are patentable for at least the same reasons set forth in support of claims 1 and 23.

Claim 28 depends from independent claim 27 and is patentable for at least the same reasons set forth in support of claims 1 and 27.

In sum, because the Examiner's reference fails to disclose, teach, or suggest all of the elements in the claims, the anticipation rejection should be withdrawn. Moreover, there is no basis for rejecting any of the pending claims as obvious.

Claim rejections under 35 U.S.C. § 103

As required by MPEP 2143 *et seq.* to establish a *prima facie* case of obviousness, three basic criteria must be met:

- (1) There must be some suggestion or motivation to modify or combine the teachings of the references;
- (2) There must be some expectation of success;
- (3) The references when combined must teach or suggest all the claim limitations.

Claims 1-3, and 6-17 stand rejected under 35 U.S.C. § 103(a) as being obvious over Bolden in view of Hagele (US Patent No. 6,041,978).

As discussed above, Bolden does not disclose, teach, or suggest all of the elements recited in claim 1. Specifically, Bolden does not disclose an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle and where the terminal/lower end portions extend at substantially equal angles. Bolden also fails to disclose a one way valve between said receiver and said capillary tube.

Despite Hagele teaching a capillary tube that is bent, Hagele still does not disclose, teach or suggest an eye dropper with a one way valve between said receiver

and said capillary tube. Nor does Hagele disclose, teach or suggest an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle and where the terminal/lower end portions extend at substantially equal angles. Put another way, the elements of claim 1 that are not taught or suggested by Bolden, are not taught or suggested in Hagele either.

Therefore, even if the disclosures of Bolden and Hagele are combined, the combination still fails to disclose, teach, or suggest all of the elements, structures and relationships recited in claim 1. It bears repeating that neither reference discloses, teaches or suggests an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle and where the terminal/lower end portions extend at substantially equal angles. Nor does either reference disclose, teach or suggest the one-way valve recited in claim 1.

Because the suggested combination fails to teach or suggest all of the features recited in the claims, the present claims are not obvious. As such, the rejection should be withdrawn.

As discussed above, claims 2-3 and 6-18 all depend, directly or indirectly, from claim 1 and are patentable for at least the reasons set forth in support of claim 1.

Claims 4 and 11 stand rejected as being obvious over Bolden in view of Hagele (US Patent No. 6,041,978) and in further view of Hanley (US 6,869,421).

Because claim 1 has been amended to include the elements of claim 4, the proposed combination of Bolden, Hagele and Hanley will be applied to claim 1.

As discussed above, neither Bolden and Hagele, alone or in combination, disclose, teach or suggest an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle and where the terminal/lower end portions extend at substantially equal angles. Nor does either reference disclose, teach or suggest the one-way valve

recited in claim 1. However, the elements of claim 1 that are not taught or suggested by the combination of Bolden and Hagele, are not taught or suggested in Hanley either.

Thus, while Hanley may indeed teach the use of a one-way valve, Hanley does not disclose, teach or suggest the elements of claim 1 that are missing from the teachings of Bolden and Hagele. Hanley, like Bolden and Hagele, fails to teach or suggest an eye dropper where both the terminal end portion of the lid retractor and the lower end portion of said lower discharge outlet of said capillary tube are bent at an angle and where the terminal/lower end portions extend at substantially equal angles.

In sum, the combination of the Bolden, Hagele and Hanley disclosures still fails to disclose, teach, or suggest all of the elements, structures and relationships recited in claim 1. As such, the rejection is improper and should be withdrawn.

Claims 22 and 26 stand rejected under 35 U.S.C. § 103(a) as being obvious over Bolden in view of Hanley.

As discussed above, neither Bolden nor Hanley, alone or in combination, disclose, teach or suggest an eye dropper where both the terminal end of the liquid flow means and the terminal end of a lid retractor are bent at substantially equal angles and extend at substantially equal angles. So while Hanley may indeed disclose the use of a one-way valve, Hanley still does not teach or suggest the remaining elements of claim 1 that are missing from the Bolden disclosure.

Because the combination fails to disclose, teach or suggest each and every element recited in the present claims, the rejection is improper and should be withdrawn.

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For all the foregoing reasons, allowance of all pending claims is respectfully requested.

Respectfully submitted,

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